Windows®. Life without Walls™.
Fujitsu recommends Windows 7.

# Data Sheet
# Fujitsu CELSIUS W410 Workstation

The low-cost gateway to workstation performance

## CELSIUS W410

The CELSIUS W410 is an excellent system providing advanced performance for workstation applications. Powered by the 2nd generation Intel® Core™ processor family and available with a wide selection of professional graphics cards, this system offers you advanced power and productivity of workstation technology and is ideal for business environments such as entry-level 2D CAD.

**Noise-reduced system engineered in Germany**
Quiet and productive working environment
- Optimized thermal management, low-noise chassis and silent fans

**Advanced performance**
Get more done in less time
- The latest processors and professional graphics cards

**Upgradeability**
Minimum downtime in the event of rapid component upgrades
- Screw less access system design

**Leading workstation application certification**
Maximum compatibility and performance with customer-preferred applications
- Full support for ISV applications and easy integration into existing IT environments

**Built to order**
Free configurability for all product lines
- Customer is given a system optimized for his requirements

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# Components

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| **Processor** | Intel® Core™ i7-2600 processor (4 Cores / 8 Threads, 3.40 GHz, 8 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i5-2500 processor (4 Cores / 4 Threads, 3.30 GHz, 6 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i5-2400 processor (4 Cores / 4 Threads, 3.10 GHz, 6 MB, Intel® HD Graphics 2000) |
| | Intel® Core™ i3-2100 processor (2 Cores / 4 Threads, 3.10 GHz, 3 MB, Intel® HD Graphics 2000) |
| **Operating system** | |
| **Operating system** | Genuine Windows® 7 Home Basic (EM) 32-bit<br>Genuine Windows® 7 Home Premium 64-bit<br>Genuine Windows® 7 Professional 32-bit<br>Genuine Windows® 7 Professional 64-bit |
| **Operating system compatible** | openSUSE Linux<br>Genuine Windows Vista®<br>Genuine Windows® XP |
| **Operating system notes** | Microsoft Office 2010 preloaded. Purchase a Product Key to activate a full Microsoft Office 2010 suite.<br>Limited Windows XP support. Microsoft discontinued Windows XP certification on system level. |
| **Memory modules** | 2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM |
| | 4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM |
| **Graphics add on cards (optional)** | Midrange 3D: ATI FirePro™ V5800, 1 GB, PCIe x16, DL-DVI-I, 2x DP |
| | Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, PCIe x16, DL-DVI-I, 2x DP |
| | Entry 3D: ATI FirePro™ V4800, 1 GB, PCIe x16, DL-DVI-I, 2x DP |
| | Entry 3D: NVIDIA® Quadro® 600, 1 GB, PCIe x16, DL-DVI-I, DP |
| | Entry 3D: NVIDIA® Quadro® 400 , 512 MB, PCIe x16, DL-DVI-I, DP |
| | Entry 3D: ATI FirePro™ V3800, 512 MB, PCIe x16, DL-DVI-I, DP |
| | Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, PCIe x16, 4 x DP |
| | Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, PCIe Gen2 x16, 2x DVI/VGA |
| **Hard disk drives (internal)** | SSD SATA, 256 GB, 2.5-inch |
| | SSD SATA, 128 GB, 2.5-inch |
| | SATA III, 10000 rpm, 600 GB, 3.5-inch internal |
| | SATA III, 7200 rpm, 1000 GB, 3.5-inch |
| | SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical |
| | SATA III, 7200 rpm, 500 GB, 3.5-inch |
| | SATA III, 7200 rpm, 320 GB, 3.5-inch |
| | SATA II, 10000 rpm, 300 GB, 2.5-inch |
| | SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical |
| | SATA II, 7200 rpm, 1000 GB, 3.5-inch, business critical |
| | SATA II, 7200 rpm, 500 GB, 3.5-inch, business critical |
| | SATA II, 7200 rpm, 160 GB, 2.5-inch |
| **Hard disk notes** | Up to 18 GB of HDD space is reserved for system recovery |
| **Drives (optional)** | Blu-ray Disc™ Triple Writer |
| | DVD-ROM |
| | DVD Super Multi |
| | MultiCard Reader 20in1, USB 2.0, 3.5-Inch |
| | MultiCard Reader 20in1 USB 3.0 front con., 3.5-Inch |

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| **Interface add on cards/components (optional)** | |
| | WLAN III, 802.11g/Draft-n (Windows only) |
| | USB 3.0 PCIe x1 |
| | Parallel Interface |
| | Gigabit Ethernet PCIe x1, DS |
| | FireWire PCI-Card IEEE1394 |
| | eSATA Interface |
| | Dual serial card PCIe x1, powered |
| | Dual serial card PCIe x1 |
| **Base unit** | CELSIUS W410 |
| **Mainboard** | |
| **Mainboard type** | D3062 |
| **Formfactor** | proprietary |
| **Chipset** | Intel® Q67 |
| **Processor socket** | LGA 1155 |
| **Processor quantity maximum** | 1 |
| **Memory slots** | 4 DIMM (DDR3) |
| **Supported capacity RAM (max.)** | 32 GB |
| **Memory frequency** | 1333 MHz |
| **Memory notes** | Dual channel support.<br>For dual channel performance, a minimum of 2 memory modules have to be ordered. Capacity per channel has to be the same.<br>> 16 GB support with future memory modules |
| **LAN** | 10/100/1000 MBit/s Intel® 82579 LM |
| **BIOS version** | AMI Aptio 4.6 |
| **BIOS features** | BIOS Flash EPROM update by software<br>Recovery BIOS |
| **Audio codec** | Conexant CX20642 |
| **Audio features** | Internal speaker supports audio playback, High Definition audio, 5.1 surround sound |
| **I/O controller on board** | |
| **Serial ATA total** | 6 |
| **thereof SATA III** | 2 |
| **thereof eSATA** | 2 (optional) |
| **Controller functions** | Serial ATA II (3 Gbit)<br>Serial ATA III (6 Gbit)<br>NCQ<br>AHCI<br>Raid 1/0 |
| **Interfaces** | |
| **Audio: line-in** | 1 |
| **Audio: line-in / microphone** | 1 |
| **Audio: line-out** | 1 |
| **Front audio: microphone** | 1 |
| **Front audio: headphone** | 1 |
| **USB 2.0 total** | 14 |
| **USB 3.0 total** | optional |
| **USB front** | 4 |
| **USB rear** | 8 |
| **USB internal** | 2 |

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| **Interfaces** | |
| VGA | 1 (via DVI to VGA adapter) |
| DisplayPort | 1 |
| DVI | 1 |
| Serial (RS-232) | 1 (9pin, 16 byte FIFO, 16550 compatible) |
| Mouse / Keyboard (PS/2) | 2 |
| Ethernet (RJ-45) | 1 |
| Parallel | 1 (optional) (25pin with EPP and ECP) |
| eSATA | 1 (optional) |
| Interface Module notes | Anytime USB charge functionality |
| **Drive bays** | |
| Drive bays total | 7 |
| 2.5-inch internal bays | 1 |
| 3.5-inch internal bays | 2 |
| 3.5-inch external bays | 2 |
| 5.25-inch external bays | 2 |
| **Slots** | |
| PCI-Express 2.0 x16 | 1 x (312 mm) full height |
| PCI-Express 2.0 x4 (mech. x16) | 1 x (312 mm) full height |
| PCI-Express x1 | 1 x (312 mm) full height |
| PCI (32-bit / 33 MHz) | 1 x (170 mm) full height |
| **Graphics on board** | |
| Graphics brand name | Intel® HD Graphics or HD Graphics 2000 (depending on CPU) |
| Shared video memory | up to 1759 MB |
| TFT resolution (VGA) | 1024 x 768 pixel<br>1280 x 1024 pixel<br>1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1600 x 1200 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel |
| TFT resolution (DVI) | 1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel |
| TFT resolution (DisplayPort) | 1360 x 768 pixel<br>1440 x 900 pixel<br>1600 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1080 pixel<br>1920 x 1200 pixel<br>2560 x 1440 pixel<br>2560 x 1600 pixel |
| Graphics features | Dual display support<br>DirectX 10.1<br>HDCP support<br>OpenGL® 2.1<br>For multi monitoring mode, graphics card and integrated graphics run in parallel (Microsoft® Windows 7® only) |

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| **Graphics on board** | |
| **Graphics notes** | Tested resolutions, depending on display type additional resolutions and frequencies possible<br>Shared memory depending on main memory size and operating system<br>Resolution (color depth up to 32 Bit/pixel)<br>For TFT we recommend using 60Hz |
| **Electrical values** | |
| **Power efficiency note** | power supply efficiency (at 230V; 20% / 50% / 100% load) : 87% / 90% / 87% |
| **Rated voltage range** | 100 V - 240 V |
| **Rated frequency range** | 50 Hz - 60 Hz |
| **Operating voltage range** | 90 V - 264 V |
| **Operating line frequency range** | 47 Hz - 63 Hz |
| **Max. output of single power supply** | 300 W |
| **Power factor correction/active power** | active |
| **Monitor outlet** | Switched |
| **Noise for standard configuration (HDD, ODD, FDD)** | |
| **Noise emission** | According to ISO9296 |
| **Related Processors for noise** | Intel Core i5-2500 |
| **Noise Operation mode 1: ODD load (Blue angel requirement)** | 25 db(A) |
| **Noise Operation mode 2: HDD load (Blue angel requirement)** | 19 db(A) |
| **Noise Operation mode 3: CPU 90% load (Blue angel requirement)** | 21 db(A) |
| **Noise Operation mode 4: High load** | 21 db(A) |
| **Noise Operation mode 5: Office applications** | 19 db(A) |
| **Idle mode (Blue Angel requirement)** | 19 db(A) |
| **Noise notes / description** | A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position |
| **Dimensions / Weight / Environmental** | |
| **Dimensions (W x D x H)** | 175 x 419 x 395 mm |
| **Operating position** | Vertical |
| **Weight** | approx. 11 kg |
| **Weight notes** | Actual weight may vary depending on configuration |
| **Operating ambient temperature** | 10 - 35°C |
| **Operating relative humidity** | 5 - 85 % (relative humidity) |
| **Compliance** | |
| **Product** | CELSIUS W410 |
| **Model** | MI5W-3062 |
| **Germany** | Blauer Engel / Blue Angel in progress<br>GS in progress |
| **Europe** | CE<br>Nordic Swan in progress |
| **USA/Canada** | FCC Class B<br>cCSAus |
| **Global** | RoHS (Restriction of hazardous substances)<br>WEEE (Waste electrical and electronical equipment)<br>Microsoft Operating Systems (HCT / HCL entry / WHQL)<br>ENERGY STAR® 5.0 in progress<br>EPEAT® in progress |
| **Compliance link** | https://sp.ts.fujitsu.com/sites/certificates/default.aspx |

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| **Security** | |
| **Physical security** | Kensington Lock support<br>Eye for padlock<br>Optional: Integrated cabinet lock<br>Optional: Intrusion switch |
| **System security** | Boot sector virus protection<br>Write protect option for the Flash EPROM<br>Embedded security (TPM 1.2)<br>Control of all USB interfaces<br>External USB ports can be disabled separately<br>Control of external interfaces |
| **User security** | User and supervisor BIOS password<br>Hard disk password<br>Optional: Access protection via external SmartCard reader<br>Optional: Access protection via internal SmartCard reader |
| **Additional Software** | |
| **Additional software (preinstalled)** | Nero Essentials S (burning software)<br>Fujitsu Recovery (Hard Disk Based Recovery) |
| **Additional software (optional)** | Recovery DVD for Windows®<br>Drivers & Utilities DVD (DUDVD)<br>CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) |
| **Miscellaneous** | |
| | Keyboard on (Special Fujitsu keyboard required)<br>Thermal management<br>Extended lifetime |
| **Manageability** | |
| **Manageability features** | DeskUpdate Driver management<br>PXE 2.1 Boot code<br>Wake up from S5 (off mode)<br>Intrusion switch (optional)<br>iAMT 7.0 |
| **Manageability type** | DeskView 10.x client management including: |
| **DeskView features** | On/Offline remote client management<br>Detailed system inventory management and reports<br>BIOS Management<br>Remote power management<br>System notifications<br>Advanced alerts (ASF implementation)<br>Security Remote Control<br>DeskView Helpdesk Integration<br>WoL (Wake on LAN) |
| **Manageability link** | http://ts.fujitsu.com/manageability<br>http://www.altiris.com/fujitsu |
| **Input device / components** | |
| | Optical USB tilt wheel mouse |
| **Input devices (optional)** | Optical USB/PS2 tilt wheel mouse<br>KBPC PX ECO<br>Mouse M440 ECO |
| **Warranty** | |
| **Standard Warranty** | 3 years (depending on country) |
| **Service level** | On-site Service (depending on country) |
| **Maintenance and Support Services - the perfect extension** | |
| **Recommended Service** | 5x9, Response Time: Next Business Day |

## Warranty

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| **Service Weblink** | http://ts.fujitsu.com/Supportservice |

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# More information

## Fujitsu platform solutions

In addition to Fujitsu CELSIUS W410, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

**Dynamic Infrastructures**
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

**Computing Products**
www.fujitsu.com/global/services/computing/

**Software**
www.fujitsu.com/software/

## More information

Learn more about Fujitsu CELSIUS W410, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.fujitsu.com/celsius

## Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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